

**Claims**

1. A method for correcting a phase of a clock in a data receiver which receives a data flow representing different signal levels with logical high and low signal values and signal transitions positioned therebetween, comprising the steps of:

evaluating the positions of the signal transitions between respective two adjacent logical signal values for correcting the phase of the clock, wherein the position of a signal transition between a first pair of signal values on a first level (11), or a second pair of signal values on a second level (00) is weighted stronger in the evaluation than the positions of signal transitions between adjacent single signal values (1,0) of different signal levels.

2. The method of claim 1 comprising the steps of:

a) sampling the data flow with a clock frequency at four intervals (AA, A, B, BB) adjacent logical signal values, and at a signal transition positioned between the inner intervals (A, B) for obtaining a position information of the transition relative to the logical signal values;

b) forming sample groups from said signal samples taken in step a).

c) supplying said sample groups to an early-late phase detector which evaluates said sample groups as to whether the phase of said clock frequency is to be shifted, and outputs a control signal for "frequency UP" "frequency DOWN" or "No control value".

d) examining whether there are pairs (11,00) of logical signal values on the same level with a signal transition between neighbouring pairs, and

e) scaling up said control signal (UP, DOWN) in step c) if the condition under step d) is fulfilled.

3. . The method of claim 2 wherein the amount of the amplification or scaling factor ( $x$ ) is changed with signal distortion conditions.

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